UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/303,554	05/03/1999	JONG SUN HAN	K-087	8522

34610 7590 02/27/2003

FLESHNER & KIM, LLP
14500 AVION PARKWAY, SUITE 125
CHANTILLY, VA 20151

EXAMINER	
ABELSON, RONALD B	
ART UNIT	**PAPER NUMBER**
2666	

DATE MAILED: 02/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 07-01)

Office Action Summary	Application No. 09/303,554	Applicant(s) HAN, JONG SUN	
	Examiner Ronald Abelson	Art Unit 2666	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12/30/2002*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *3-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *3-7,9-13 and 15-26* is/are rejected.

7)☒ Claim(s) *3 and 14* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *03 May 1999* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

Claim Rejections - 35 USC § 103

1. Claims ~~2~~3-5, 9-13, and 15-26 rejected under 35 U.S.C. 103(a) as being unpatentable over the applicant's admitted prior art "AAPA" in view of Gilhousen (US 6,185,246).

Regarding claims 10, 15, 16, 21, 22, and 24, AAPA a method for controlling call access of a terminal in a communication system (applicant: pg 2 lines 20-25), comprising the step of broadcasting at a base station call access control signal including interference information of a reverse link (applicant: pg. 3 lines 6-18).

Regarding claims 12, 25 and 26, AAPA teaches a link busy/idle field indicating whether or not interference of a reverse link transmitted to a mobile terminal from a base station exceeds a preset threshold value (applicant: pg. 3 lines 6-18).

Regarding claims 15 and 24, a method for accessing a base station comprising receiving call access control information (applicant: pg. 3 lines 18-21).

Regarding claim 3, interference information of the reverse link compares overall received power from the plurality of mobile stations in the cell or sector of the base station with a predefined threshold value, and then selectively indicates

whether a current reverse channel is idle or busy (applicant: pg. 2 line 24 - pg. 3 line 7).

AAPA is silent on broadcasting at least one or more code class in which Walsh codes assigned to mobile stations from the base station are classified depending on transmission rate, to a plurality of mobile stations in its cell or sector, as specified in claims 10, 15, 17, 21, and 22; a method for accessing a base station comprising receiving call access information including Walsh code class state information and accessing the base station using an available code class based on the received Walsh code class state information, as specified in claims 15, 23, and 24; the information of the code classes indicates individually whether the state of each code class is idle or busy, as specified in claims 4, 11, 12, 18 and 19; the information includes information on a plurality of code classes have relative priority orders if a code length of each code class is different, as specified in claims 5 and 20; and if the reverse link included in the call access control information, the mobile station/ system identifies the state of an individual resource of code class so as to implement call access using a code class assigned to oneself among code classes which are idle, as specified in claim 9.

Regarding claims 10, 15, 17, 21, and 22, Gilhousen teaches broadcasting at least one or more code class in which Walsh codes assigned to mobile stations from the base station are classified depending on transmission rate, to a plurality of mobile stations in its cell or sector (data rate select signals, col. 18 lines 9-12).

Regarding claims 15, 23, and 24, a method for accessing a base station comprising receiving call access information including Walsh code class state information (Gilhousen: col. 18 lines 9-12) and accessing the base station using an available code class based on the received Walsh code class state information (Gilhousen: fig. 7 box 520, col. 18 lines 6-9).

Regarding claims 4, 11, 12, and 18, 19, the information of the code classes indicates individually whether the state of each code class is idle or busy (Gilhousen: col. 12 lines 18-22).

Regarding claims 5 and 20, the information includes information on a plurality of code classes have relative priority orders if a code length of each code class is different (Gilhousen: col. 12 lines 29-34, 46-48).

Regarding claim 9, if the reverse link included in the call access control information, the mobile station/ system

identifies the state of an individual resource of code class so as to implement call access using a code class assigned to oneself among code classes which are idle (Gilhousen: available code, col. 12 lines 29-31).

Regarding claim 13, the code class busy/idle field indicates whether the state of each code class is idle or busy. Given that a data rate select signal (Gilhousen col. 18 lines 9-12) is sent to the mobile, it would be obvious to inform the mobile on which code classes are active or busy. If this were not the case, the mobile wouldn't know if it should request a channel.

Therefore it would have been obvious to one of ordinary skill in the art, having both AAPA and Gilhousen before him/her and with the teachings [a] as shown by AAPA, a method for controlling call access of a terminal in a communication system, comprising the step of broadcasting at a base station call access control signal including interference information of a reverse link, and [b] as shown by Gilhousen, teaches broadcasting at least one or more code class in which Walsh codes assigned to mobile stations from the base station are classified depending on transmission rate, to a plurality of mobile stations in its cell or sector, to be motivated to modify

the system of AAPA by having the transmitter output a data rate select signal to the mobile during the call set up message. This modification can be performed in software. This would improve the system by allowing the mobile to choose the optimal code length among the currently available codes.

2. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of AAPA and Gilhousen as applied to claim 23 above, and further in view of Kamachi (US 5,678,181).

In addition to the limitation previously listed, AAPA teaches transmitting call access information through a broadcasting channel BCCH (fig. 1: pg. 3 lines 2-4).

AAPA is silent on the period of transmission.

Kamachi teaches the BCCH channel is broadcast per superframe (fig. 2).

Therefore it would have been obvious to one of ordinary skill in the art, having both the combination of AAPA and Gilhousen and Kamachi before him/her and with the teachings [a] as shown by the combination of AAPA and Gilhousen, a method of controlling call access in a mobile communication system wherein call access information is transmitted through the BCCH channel, and [b] as shown by Kamachi, the BCCH channel is broadcast per

superframe, to be motivated to modify the system of the combination of AAPA and Gilhousen by transmitting call access information through a broadcasting channel BCCH on a superframe basis. This modification can be performed in software. This would improve the system by making the system compliant with conventional mobile radio systems (Kamachi: col. 5 lines 3-4).

3. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of AAPA and Gilhousen as applied to claim 23 above, and further in view of Czaja (US 6,356,595).

In addition to the limitation previously listed, AAPA teaches transmitting call access information through a paging channel (fig. 1: pg. 1 lines 20-23).

AAPA is silent on the period of transmission.

Czaja teaches transmitting on the paging channel per slot cycle period (fig. 1, col. 3 lines 61-63, 66-67).

Therefore it would have been obvious to one of ordinary skill in the art, having both the combination of AAPA and Gilhousen and Czaja before him/her and with the teachings [a] as shown by the combination of AAPA and Gilhousen, a method of controlling call access in a mobile communication system wherein call access information is transmitted through the paging

channel, and [b] as shown by Czaja, transmitting on the paging channel per slot cycle period, to be motivated to modify the system of the combination of AAPA and Gilhousen by transmitting access information on the paging channel and assigning each mobile station one periodic paging channel slot. This would improve the system by allowing each mobile to access its call access information at a preset time.

Allowable Subject Matter

4. Claims 8 and 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. The following is a statement of reasons for the indication of allowable subject matter.

Regarding claim 8, nothing in the prior art of the record teaches or fairly suggests the mobile station uses a code class having the highest priority if the mobile station requests call access from the base station, in combination with the other limitations listed in the claim. In contrast, Gilhousen teaches assigning low data rate uses long codes (col. 11 lines 34-38, col. 12 lines 46-48).

Regarding claim 14, nothing in the prior art of the record teaches or fairly suggests the data frame structure wherein the code class have relatively higher priority orders if a code length of each code class is different, in combination with the other limitations listed in the claim. In contrast, Gilhousen teaches the higher the priority code, the shorter it's length (col. 11 lines 34-38, col. 12 lines 46-48).

Response to Arguments

6. Applicant's arguments with respect to claims 2-7, 9-13, and 15-26 have been considered but are moot in view of the new ground(s) of rejection. The examiner agrees with the applicant that the combination of AAPA and Adachi does not teach the applicant's claimed invention. Therefore, another office action has been submitted.

Regarding figure 1 (applicant: pg. 9 lines 5-9), the examiner agrees with the applicant that the wording "related art" is acceptable. Regarding figure 3 maintains that the figure itself is "prior art" even though it represents an "embodiment of the present invention" (applicant: pg. 9 lines 5-9).

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ronald Abelson whose telephone number is (703) 306-5622. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on (703) 308-5463. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-9600.

Ra
Ronald Abelson
Examiner
Art Unit 2666

Ra
***
February 12, 2003